IN THE CLAIMS:

Please amend claim 15 as follows:

1. (Previously Presented) A head positioning control method for a storage device for positioning a head at a specified location on a storage medium, comprising:

a step of performing coarse control based on a present position of said head without performing integral compensation or bias compensation;

a step of estimating a position of said head for a next sample, and estimating an initial bias value from a difference between a detected position and said estimated position; and

a step of performing settling control with said integral compensation or said bias compensation by using said initial bias value,

wherein said step of performing said settling control performs settling control by observer control, and

wherein said control means estimates the initial bias value at the start of settling.

2. (Previously Presented) The head positioning control method of claim 1, wherein said step of performing settling control comprises:

a step of supplying at least one of a target trajectory and feed forward current, whose size is proportional to an initial position or initial velocity at a start of said settling control, to a control system for performing said settling control.

3. (Canceled)

4. (Previously Presented) The head positioning control method of claim 1, wherein said step of performing said coarse control is velocity control of said head.

5. (Previously Presented) A head positioning control method for a storage device for positioning a head at a specified location on a storage medium, comprising:

a step of generating a position trajectory and feed-forward current based on a current position and current velocity of said head; and

a step of supplying said position trajectory and feed-forward current to a feedback control system that calculates the amount of control according to a position error between said current position and a target position of said head,

wherein said generating step generates the position trajectory and feed-forward current based on the current position and the current velocity of said head at the start of settling.

6. (Previously Presented) The head positioning control method of claim 5, wherein said supply step comprises:

a step of correcting said position error by said position trajectory; and

a step of adding said feed-forward current to said control amount that is calculated by said feedback control system from said corrected position error.

7. (Previously Presented) The head positioning control method of claim 5, wherein said generation step is executed during seek of a relatively short distance.

8. (Previously Presented) The head positioning control method of claim 5, wherein said generation step is a step that is executed during settling control when seeking over a relatively long distance.

9. (Previously Presented) The head positioning control method of claim 5, wherein said generation step comprises:

a step of multiplying a unit position trajectory by said current position trajectory to generate said position trajectory; and

a step of multiplying a unit velocity trajectory by said current velocity to generate said feed-forward current.

10. (Previously Presented) The head positioning control method of claim 5, wherein said generation step comprises:

a step of generating said position trajectory and feed-forward current based on current position and current velocity of said head according to said seek distance.

11. (Previously Presented) A head positioning control device for a storage device for driving an actuator to position a head at a specified location on a disk, comprising:

a detection means for detecting a present position of said head; and

a control means that performs coarse control without integral compensation or bias compensation and then performs settling control of said actuator based on said detected position,

wherein said control means performs settling control with integral compensation or bias compensation by estimating the position of said head for the next sample; and estimating the initial bias value from the difference between said detected position and said estimated position,

wherein said control means performs settling control by observer control, and

wherein said control means estimates the initial bias value at the start of settling.

12. (Previously Presented) The head positioning control device of claim 11, wherein said control means supplies at least a target trajectory or feed-forward current, that is proportional to the initial position or initial velocity at the start of said settling, to a control system that performs said settling control.

13. (Canceled)

14. (Previously Presented) The head positioning control device of claim 11, wherein said coarse control is velocity control of said head.

15. (Currently Amended) A head positioning control device for a storage device for driving an actuator to position a head at a specified location on a storage medium, comprising:

a detection means for detecting a current position of said head; and

a control means that performs seek control of said actuator based on said detected position,

wherein said control means generates a position trajectory and feed-forward current based on a current position and current velocity of said head, and supplies said position trajectory and feed-forward current to a feedback control system that calculates

the amount of control according to a position error between said current position and a target position of said head, and

wherein said ~~generating step~~ control means generates the position trajectory and feed-forward current based on the current position and the current velocity of said head at the start of settling.

16. (Previously Presented) The head positioning control device of claim 15, wherein said control means corrects said position error by said position trajectory, and adds said feed-forward current to said control amount that is calculated by said feedback control system from said corrected position error.

17. (Previously Presented) The head positioning control device of claim 15, wherein said control means executes said supply of said position trajectory and feed-forward current when seeking over a relatively short distance.

18. (Previously Presented) The head positioning control device of claim 15, wherein said control means executes said supply of said position trajectory and feed-forward current during settling control when seeking over a relatively long distance.

19. (Previously Presented) The head positioning control device of claim 15, wherein said control means multiplies a unit position trajectory by said current

position to generate said position trajectory, and multiplies a unit velocity trajectory by said current velocity to generate said feed-forward current.

20. (Previously Presented) The head positioning control device of claim 15, wherein said control means generates said position trajectory and feed-forward current based on the current position and current velocity of said head according to said seeking distance.